

Country: Turkey

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Assessment of the seasonal forecast for the winter season

DJF 2013-14

1. MedCOF-1 Climate outlook for the 2013-14 winter season:

According to MedCOF-1 Climate outlook , there is no clear signal appears for Turkey for the temperature of winter season. Also, for the precipitation ; there is no clear signal appears for winter season almost for all of the country, while for east of the country was expected to have slightly higher precipitation than normal.

2. Analysis of the 2013-14 winter season:

In **December** of 2013, the mean temperature were around normals in north west of the country, west part of South East Anatolia and in south coast area of the country. While it was below normals in the rest of the country. The lowest value of monthly mean minimum temperature, -13,5 °C, was measured in Ağrı, and the highest value of monthly mean maximum temperature, 12,7 °C in Alanya.

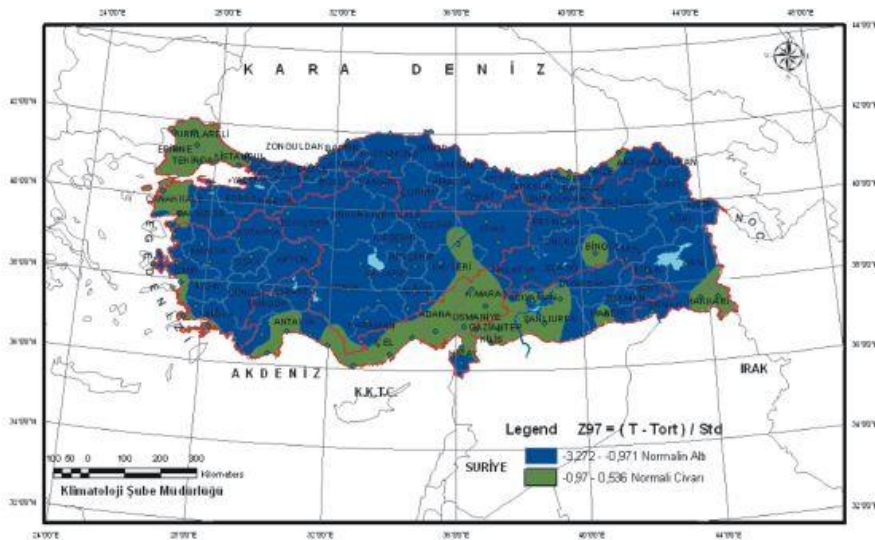


Figure 1. December-2013 Mean Temperature Anomalies

Generally, total mean precipitation in December 2013 was less than the normals and previous December's. While December 2012 monthly mean total precipitation was 152,0 mm, it was 41,8 mm for December 2013 and the normal is 89,7 mm. The rainfall in December 2013 decreased %53,4 relative to normals and %72,5 relative to last December over almost whole country.



Figure 2. December-2013 Precipitation Anomalies

In **January** of 2014, the mean temperatures were around normals in inland and east part of Turkey while in the rest of the country it was higher than normals. The lowest value of monthly mean minimum temperature, -28,5 °C, was measured in Erzurum, and the highest value of monthly mean maximum temperature, 23,9 °C in Trabzon.

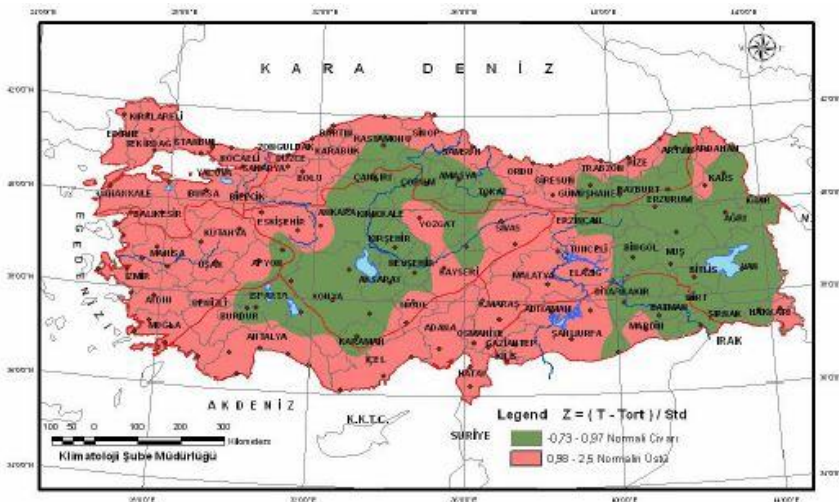


Figure 3. January-2014 Mean Temperature Anomalies

Total mean precipitation in January 2014 was less than both the normals and last January's. Normals for January is 77,2 mm, mean precipitation for January was 60,1 mm. Monthly mean total precipitation of January 2013 was 98,6 mm. Rainfall has decreased by 22,2% and 39,1% relative to normals and last January.



Figure 4. January-2014 Precipitation Anomalies

In **February** of 2014, the mean temperatures were around normals in Balıkesir, Batman and east and inland part of East Anatolia. It was above normals in the rest of the country. The lowest value of monthly mean minimum temperature, $-10,2\text{ }^{\circ}\text{C}$, was measured in Ağrı, and the least value of monthly mean minimum temperature, $14,4\text{ }^{\circ}\text{C}$ in İskenderun.

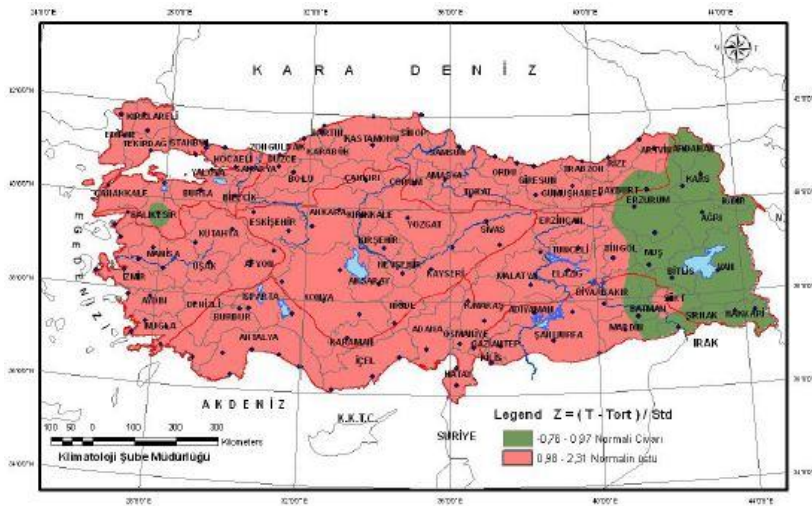


Figure 5. February-2014 Mean Temperature Anomalies

Total mean precipitation in February 2014 was below than the normals and last February. Monthly mean total precipitation of February was 24,6 mm and the normal was 70,4 mm while February 2013 mean total precipitation was 76,5 mm. The rainfall in february decreased 65,1% relative to normals and 67,9% relative to last February.



Figure 6. February-2014 Precipitation Anomalies

3. High Impacts Events:

In **December** 2013, The most notable event, heavy rain, floods effected in Black Sea. Especially highway, trees and houses were damaged. Also heavy snow, effected in East Part of Turkey and Transportation was damaged.

In **January**, heavy snowfall affected the East Part of Country in January of 2013. Snow Depth was measured 2-2.5 meters at some cities. Transportation was damaged and we lived avalanche at some region . Heavy rain, storm, tornado, floods damaged to agricultural areas, trees, transportation and settlements in the West and South part of Turkey.

In **February** 2014, snowfall affected the East Part of Country and heavy rain, storm, tornado effected in the several part of Turkey. Especially hail and tornado damaged to agricultural areas in Aegean region and Antalya.

4. Verification of the MedCOF-1 climate outlook for the 2013-14 winter season:

The table below is a verification summary of the climate outlook for the DJF 2013-14. A brief description of the observed and predicted seasonal temperature and precipitation should be added (Normal, Above normal, Below normal, No clear signal, etc.).

The climatological reference period should be indicated.

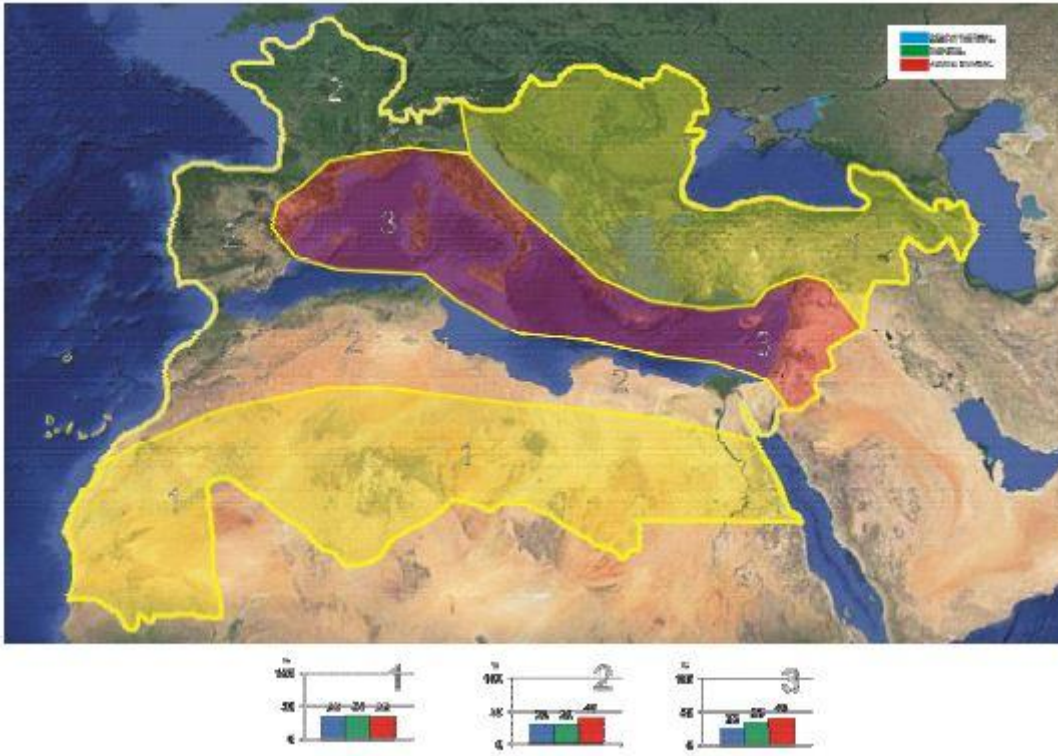


Figure 7. Graphical presentation of 2013/14 winter temperature outlook

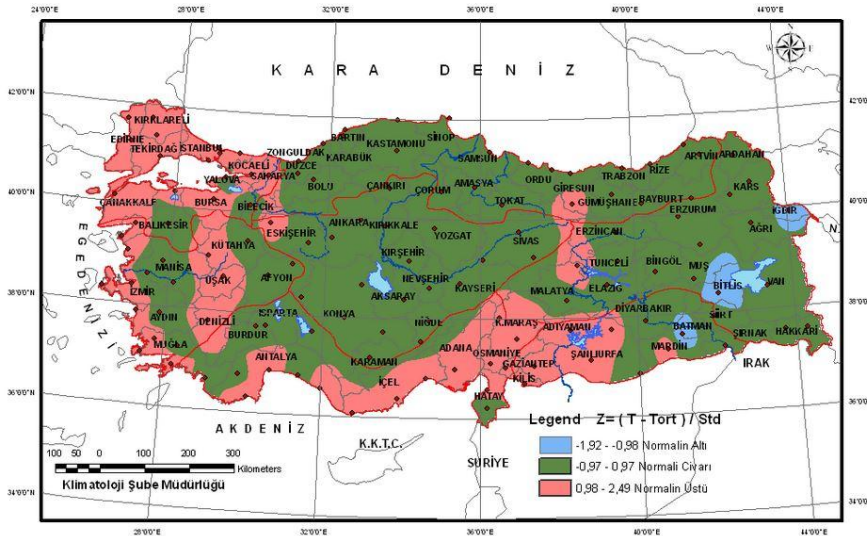


Figure 7. 2013-2014 Winter Season Mean Temperature Anomaly of Turkey

Mean temperature was around normal almost whole country except some north west, west and south coast line. It was above normal in this region and also in the cities of Bursa, Kütahya, Uşak, Denizli, Gümüşhane, Erzincan and Tunceli. Mean temperature anomalies was

expected probably 33% below normal, 34% around normal and %33 above from normal for Turkey by MedCOF experts forecast.

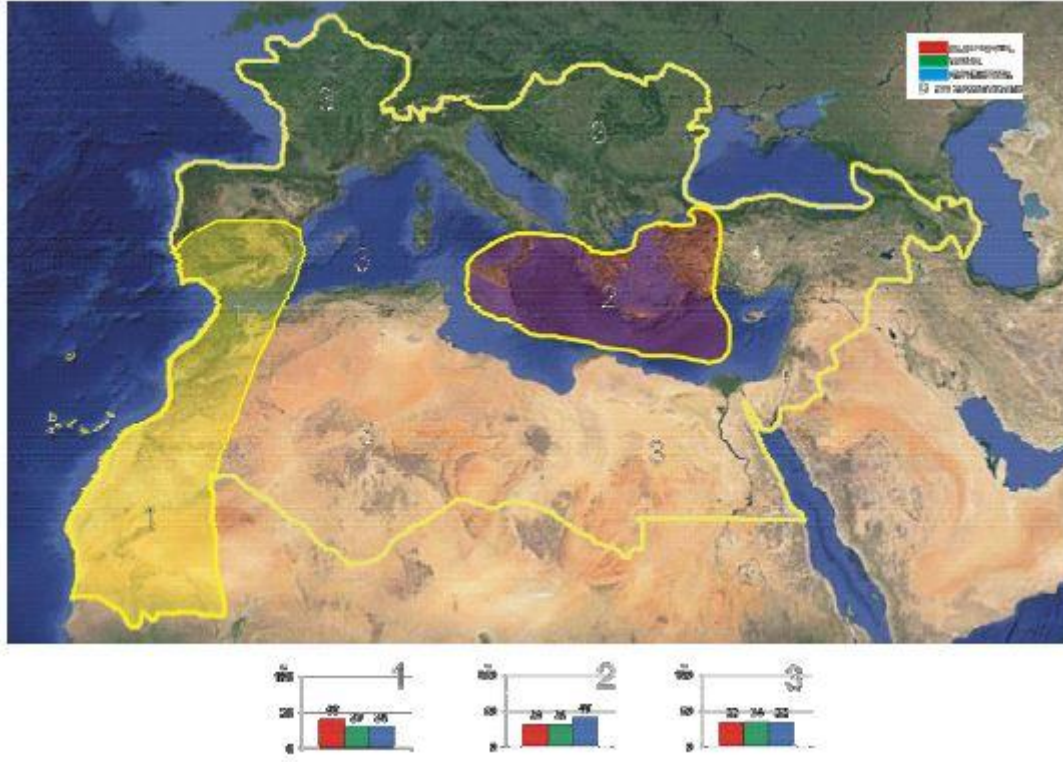


Figure 8. Graphical presentation of 2013/14 winter precipitation outlook



Figure 9. 2013-2014 Winter Season Mean Precipitation Anomaly of Turkey

Total precipitation amount were lower than normal in all of the country except from Konya, Artvin and İğdır. According to the MedCOF experts forecasts, no clear signal appeared for winter season for most of the country. For east of the country, precipitation was expected to be slightly higher than normal.